Complete Summary

GUIDELINE TITLE

Lactose intolerance in infants, children, and adolescents.

BIBLIOGRAPHIC SOURCE(S)

Heyman MB, Committee on Nutrition. Lactose intolerance in infants, children, and adolescents. Pediatrics 2006 Sep;118(3):1279-86. [72 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

All clinical reports and policy statements from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Lactose intolerance

Note: Cow milk-protein intolerance that can occur within the first 1 to 3 months of life is not the subject of this guideline.

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management

CLINICAL SPECIALTY

Family Practice
Gastroenterology
Internal Medicine
Nutrition
Pediatrics

INTENDED USERS

Advanced Practice Nurses
Dietitians
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To provide an updated review of lactose intolerance in infants, children, and adolescents
- To discuss differences between primary, secondary, congenital and developmental lactase deficiency that may result in lactose intolerance

TARGET POPULATION

Infant, children and adolescents with suspected lactose intolerance

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis

1. Clinical history
2. Symptom evaluation
3. Hydrogen breath testing
4. Dietary elimination and challenge
5. Stool examination, including fecal pH testing
6. Intestinal biopsy

Note: The lactose-tolerance test was considered but not recommended. The lactose breath test is being considered as a test to augment the hydrogen breath test but is still primarily an investigational tool.

Management

1. Dietary restriction
    - Avoidance of milk and other dairy products
    - Lactose free, lactose reduced milk
    - Lactose free formulas
2. Oral lactase-replacement therapy
3. Calcium supplementation

MAJOR OUTCOMES CONSIDERED

- Symptom relief
- Calcium intake
- Bone mineralization
- Differential diagnosis

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Summary

Lactose intolerance has been recognized for many years as a common problem in many children and most adults throughout the world. Although rarely life-threatening, the symptoms of lactose intolerance can lead to significant discomfort, disrupted quality of life, and loss of school attendance, leisure and sports activities, and work time, all at a cost to individuals, families, and society. Treatment is relatively simple and aimed at reducing or eliminating the inciting substance, lactose, by eliminating it from the diet or by "predigesting" it with supplemental lactase-enzyme replacement. Calcium must be provided by alternate nondairy sources or as a dietary supplement to individuals who avoid milk intake.

Conclusions

1. Lactose intolerance is a common cause of abdominal pain in older children and teenagers.
2. Lactose intolerance attributable to primary lactase deficiency is uncommon before 2 to 3 years of age in all populations; when lactose malabsorption becomes apparent before 2 to 3 years, other etiologies must be sought.
3. Evaluation for lactose intolerance can be achieved relatively easily by dietary elimination and challenge. More-formal testing is usually noninvasive, typically with fecal pH in the presence of watery diarrhea and hydrogen breath testing.
4. If lactose-free diets are used for treatment of lactose intolerance, the diets should include a good source of calcium and/or calcium supplementation to meet daily recommended intake levels.
5. Treatment of lactose intolerance by elimination of milk and other dairy products is not usually necessary given newer approaches to lactose intolerance, including the use of partially digested products (such as yogurts, cheeses, products containing *Lactobacillus acidophilus*, and pretreated milks (Medow et al., 1990; Saunders & Klaenhammer, 2001). Evidence that avoidance of dairy products may lead to inadequate calcium intake and consequent suboptimal bone mineralization makes these important as alternatives to milk. Dairy products remain principal sources of protein and other nutrients that are essential for growth in children.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate diagnosis and treatment of patients with lactose intolerance

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Sep

GUIDELINE DEVELOPER(S)

American Academy of Pediatrics - Medical Specialty Society

SOURCE(S) OF FUNDING

American Academy of Pediatrics

GUIDELINE COMMITTEE

Committee on Nutrition

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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GUIDELINE AVAILABILITY

Electronic copies: Available from the American Academy of Pediatrics (AAP) Policy Web site.

Print copies: Available from American Academy of Pediatrics, 141 Northwest Point Blvd., P.O. Box 927, Elk Grove Village, IL 60009-0927.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

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